AMENDMENTS TO THE SPECIFICATION:

Page 4, replace the paragraph beginning at line 10 with the amended paragraph as follows:

Figure 1 shows an inflation circuit 1 according to the invention. This circuit 1 comprises a compressed fluid source 2, in practice compressed air. The circuit 1 makes it possible to supply a reception chamber or pressure chamber 3. The chamber 3 is for example that formed on the right side of a vehicle tire. The circuit 1 further comprises a compressed fluid supply line 4. This circuit 1 may be particularly simple according to the invention and comprise in particular a single duct leading from the source 2 to the reception chamber 3. Otherwise, the supply line 4 may have as many branches 5 to 8 as there are independent chambers, particularly if the vehicle has a plurality of tires. Between each reception chamber 3 and the source 2, in the supply line 4 or in the branches 5 to 8, a non-return valve is interposed. A non-return valve VA is interposed for example in the branch 5 between the chamber 3 and the source 2. The same applies to the non-return valves VB, VC, and VD for the branches 6, 7 and 8.

Page 4, replace the last full paragraph with the amended paragraph as follows:

These non-return valves may be, according to the invention and as will appear below, the two-way type with piston and slide or the two-way type with a simple non-return valve, or more precisely may be springless and include a free differential valve.

Page 8, replace the first full paragraph with the amended paragraph as follows:

In order to act on a chamber 3 independently of the others with the slide valves EVA to EVD, the branch 5 to 8 is selected which is to be supplied. For example, in order to supply the ~~tire~~ chamber 3, the valve EVA receives a negative command and remains open, whereas the other three slide valves are closed by receiving a positive command. In this case, only the branch 5 of the supply line 4 will be subsequently active. All the branches can be selected in turn with the slide valves EVA to EVD.

Page 8, replace the paragraph beginning at line 13 with the amended paragraph as follows:

In order to inflate the tire [[~~3~~]], one starts by closing the escape valve EVE, which switches upon receiving a positive command. In the case of inflation, furthermore, the calibrated leak 11 is preferably isolated, also causing the deflation valve EVDG to switch. Then the valve EVGF, normally closed, is opened by sending a positive command thereto. This positive command is maintained until the pressure sensor CP1 informs the microcontroller 18 that the expected pressure has been reached. At this moment, the microcontroller 18 closes the slide valve EVGF. Inflation is complete.

Page 9, replace the paragraph beginning at line 5 with the amended paragraph as follows:

It will be noted to this end that the valve EVDG, although particularly useful, is not entirely indispensable. In fact, if the output of the calibrated leak is small, and if on the other hand the reserve of compressed air in the reservoir 16 is great, this slide valve can be omitted and inflation of the tire ~~3~~ can be brought about by tolerating a leak 11. In any case, at the end of inflation, the supply line 4 is at the expected pressure, as is the chamber 3 of the tire ~~3~~.

Replace the paragraph bridging pages 9-10 with the amended paragraph as follows:

In order to bring about deflation of the tire ~~3~~, whereas this tire ~~3~~ has been selected by the slide valve EVA, the slide valve EVE for connection to the free air is closed first of all. Then, for a brief period, e.g. one second, the inflation slide valve EVGF is opened, then re-closed. Thus a slight high pressure is created in the supply line 4. This high pressure opens the valve VA. Then, the deflation valve EVDG is opened by being subjected to a positive command. Due to the high pressure, the non-return valve VA has been opened, allowing communication between the supply line 4 and the chamber of the tire ~~3~~. Due to the calibrated leak 11, the pressure in the supply line 4 decreases. It decreases slowly, however, continuing to allow the valve VA to stay open and a leak of air contained in the chamber 3 of the tire ~~3~~.

Page 10, replace the first full paragraph with the amended paragraph as follows:

This leak is produced normally provided that the pressure of the tire ~~3~~ is only slightly higher than the pressure in the supply line 4. In principle, these two pressures should balance. But as the pressure in the supply line 4 decreases progressively, the pressure in the chamber of the tire ~~3~~ also decreases progressively right down to complete deflation if desired. Due to differences in manufacturing technology, it will be seen that such total deflation is obtained when the valve is of the two-way type with a simple non-return valve. For piston and slide valves, the presence of a spring for closing the valve means that deflation is not total, but only down to a pressure of about 1 bar. Such deflation is sufficient however to permit adaptation to any possible driving conditions.

Page 11, replace the first full paragraph with the amended paragraph as follows:

With the circuit such as shown, it is possible furthermore easily to realize pressure control in any one of the tires. For such a pressure measurement for the purpose of control, first of all one of the valves EVA to EVD is selected which

corresponds to the tire to be checked. Then the escape valve EVE is closed and the deflation valve EVDG is closed. Then, for a short time, e.g. one second, the inflation valve EVGF is caused to open. Thus the high pressure in the supply line 4 opens the non-return valve VA of the chamber of the selected tire and keeps this valve VA open, thus creating a pressure in the supply line 4, in particular at the moment of re-closure of the inflation valve EVGF which is exactly equal to the pressure prevailing in the chamber 3 of the tire [[~~3~~]]. It is possible with this pressure measurement to display on a dashboard of a vehicle an indication informing the driver of the pressure of his tires. Otherwise, according to a program recorded in a program memory of the microcontroller 18, it is possible to command automatic adjustment of the pressure of the tires to an expected value. For example, a pressure measurement of each of the tires every six minutes can be arranged. The results of these measurements can furthermore be stored in a memory of the microcontroller 18. An action of inflation or deflation of each of these tires can then be carried out if the difference between a measured pressure and an expected pressure is greater than a given threshold.

Page 11, replace the first full paragraph with the amended paragraph as follows:

In order to ensure the sealing-tightness of the assembly, the shaft 22 is held rigidly on the rim 21 via a toric sealing-tight joint 40. In order to avoid leaks between the chamber 36, the non-return valve VA and the exterior, the non-return valve VA is mounted in the housing 38 with two toric joints 41 and 42. As will be seen below, the non-return valve VA has a non-return-type communication between a face 43 opposite to the chamber 36 and a circular groove 44 formed between the two toric joints 41 and 42. The groove 44 opens furthermore (in the housing 38) opposite to a line 45 mounted in a sealing-tight manner between the inner part of the chamber 38 and the outer part, but inside the tire [[~~3~~]], on the rim 21.

Page 16, replace the first full paragraph with the amended paragraph as follows:

Figure 5 shows that the valves VA-VD may comprise a two-way simple springless non-return ~~valve 71 or, in other words,~~ valve 71A which includes a free differential valve 71. This valve 71 comprises a ferrule 74 which keeps a circular cylindrical ~~stopper floating~~ floating stopper 73, ~~forming~~ of the free differential valve. The valve 71 is said to be free because the stopper is floating. It is differential because the stopper is subject to displacements depending on the differential pressures which it receives on each of its circular faces. The valve 71 comprises to this end a first hollow ferrule 74, of which an inner bore 72 is smaller than the diameter of the stopper 73. It further comprises a cap 75, which is perforated and surmounts the ferrule. The cap 75 has an inner bore whose diameter is larger than that of the stopper 73. The cap 75 is mounted on the ferrule 74 by means of a joint, which serves both to provide sealing-tightness between the cap 75 and the ferrule 74 and between these parts and a plate (see above for explanation relating to the plate 76). The stopper 73 is placed between the cap and the top of the ferrule, in the space where the bore of the cap is larger than the diameter of the stopper. At this place, the stopper can rest on top of the ferrule. In this rest position, the stopper obstructs the passage of air into the ferrule and forms a non-return valve. The valve ~~71~~ 71A forms a non-return valve which is here called simple because it does not have a spring, slide or piston. The diametric floating clearance of the stopper 73 in the bore of the cap 75 acting as a valve is such that, whatever the position of the stopper 73, the bore 72 is always blocked by simple placing of the stopper 73 at the top of the ferrule 74.

Replace the paragraph bridging pages 16-17 with the amended paragraph as follows:

The free distribution valve ~~72~~ 71 is further mounted in a plate 76 of the non-return valve 71A, which is of the same type as the plate 46. It is intended to be mounted in the housing 38 of a hub. Compared to the two-way piston and slide valve of Figures 3a to 4b, the valve ~~71~~ 71A makes it possible to overcome numerous problems. Due to its simplicity, having neither a piston nor spring, it is much

cheaper. Not having a slide, it does not require a leak 68 nor a filter 69. The valve 71 is only mounted in the plate 76 opposite to a perforation 77 starting from a circular face of the plate 76. The perforation 77 does not open into the other face of the plate 76. It intersects with a diametric perforation which opens into the groove 44. Preferably, the diametric perforation opens from the two sides of the diameter. Even the work on the plate 76 is thus reduced, as there is no stopper to mount.

Page 17, replace the first full paragraph with the amended paragraph as follows:

In the invention, it has been found furthermore that this valve 71 admits the same type of deflation operation as that described for the piston and slide valve, for which such deflation is only explained by the presence of a piston having a bearing face which is larger on the side of a weaker pressure (on the side connected to the air) than on the side of a higher pressure (on the side of the tire chamber). In this case, it is has been possible to observe that such a phenomenon of deflation can be produced because, upstream of the valve ~~71~~ 71A, on the side of the tire chamber, the flow of air undergoes greater losses of head than on the side of the calibrated leak 11. In order therefore to increase this beneficial effect (from this point of view) of loss of head, it is provided to surmount the conduit 45 in the place where it penetrates into the chamber 3 of a choke. This choke acts essentially as a loss of head device. This choke is for example obtained by mounting a perforated screw 78 at the end of the line 45. The screw 78 allows a little air to pass, but not too much, so that the pressure gradient from one end (screw 78) to the other (leak 11) of the escapement is sufficiently weak that the stopper can continue to float in the space allotted to it between the ferrule 74 and the cap 75. With the valve 71, it is possible

to obtain total deflation, since no spring comes at any moment to obstruct the difference in pressure resulting from the pressure gradient during deflation.

Replace the paragraph bridging pages 18-19 with the amended paragraph as follows:

In Figure 6, a preferred form of the cap 75 is shown. In fact, if in the embodiment in Figure 5, the part of the stopper 73 opposite to the perforation 77 is pushed flat against the edge of the perforation 77, inflation of the chamber is made difficult. It may then be necessary to inflate the same with slightly high pressure. In order to inflate the chamber with very high pressure, the top of the cap 75 opposite to the ferrule 71 has been modified. This cap 75 comprises, according to an improvement, a first top perforation ~~78~~ 90 opposite to the bore 77 in order to ensure communication of inflation. This perforation ~~78~~ 90 is equipped with cavities 79 placed at its periphery. The cavities 79 are preferably round. Preferably they do not cross from one side to the other of the top of the cap 75. They are preferably formed only in the inner part thereof. They are nevertheless higher than the inner top of the stopper 75. They span the contour of the perforation ~~78~~ 90 with their profile. The diameter of the perforation ~~78~~ 90 is less than the diameter 80 of the stopper 73. The diameter 80 of the stopper 73 is itself lower than the diameter 81 of the interior of the cap 75 in its part which receives the stopper 73. Consequently, the stopper 73 may float therein. The floating clearance furthermore takes into account expansion due to compressions of the stopper 73 when the valve is closed. The eccentric parts of the cavities 79 go beyond the contour 81. However, these eccentric parts remain within

the outer contour 82 of the cap 75 in order to ensure sealing-tightness thereof. The cap thus has an internal shape of a trefoil, in one example with five leaves.

Page 19, replace the paragraph beginning at line 3 with the amended paragraph as follows:

The function of this cap is as follows. During deflation, the stopper 73 is pushed back by pressure of air from its rest on the top of the ferrule 71. By floating in the cavity of the cap 75, it comes to bear with its upper edge on the tables 83 present between the cavities 79, between the leaves of the trefoil. The cavities 79 are higher than the bore 81 of the cap 75. By resting against these tables 83, the stopper 73 creates spaces 84 for the circulation of inflating air. These spaces 84 are located in the parts of the cavities 79 which are not occupied by the stopper 73. On the side of the ferrule 71, the spaces 84 are obviously in communication with this ferrule 71, since the stopper 73 is removed from its rest position against this ferrule 71 and since the cavities 79 extend preferably from the part of this cap 75 which bears against the ferrule 71. On the side opposite to the ferrule 71, the spaces 84 communicate with the bore 77 or the perforation ~~78~~ 90, because the cavities 79 are higher than the bore 81 of the cap 75. And since they intersect by their profile with the profile of this bore 81, the communication of air is easily established. It should be noted finally that the stopper 73 also makes possible dismantling of the wheel except for the hub (the plate 76 remains integral with the wheel) without deflating the tire.